



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0366; Project Identifier MCAI-2021-00080-T]**

**RIN 2120-AA64**

**Airworthiness Directives; ATR – GIE Avions de Transport Régional Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive

(AD) 2020-23-13, which applies to all ATR – GIE Avions de Transport Régional Model ATR42-200, -300, and -320 airplanes. AD 2020-23-13 requires a one-time inspection for discrepancies of the wire bundles between the left- and right-hand angle of attack (AOA) probes and the crew alerting computer, and, depending on findings, applicable corrective actions. Since the FAA issued AD 2020-23-13, a wiring modification for the captain stick shaker has been developed, along with an update to the aircraft flight manual (AFM).

This proposed AD would continue to require the actions in AD 2020-23-13. This proposed AD would also require, for certain airplanes, modifying the captain stick shaker wiring, and for all airplanes, revising the existing AFM and applicable corresponding operational procedures to incorporate procedures for the stick pusher/shaker, as specified in a European Union Aviation Safety Agency (EASA), which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that will be incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0366.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0366; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Shahram Daneshmandi, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South

216th St., Des Moines, WA 98198; phone and fax: 206-231-3220; email:

shahram.daneshmandi@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0366; Project Identifier MCAI-2021-00080-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Shahram

Daneshmandi, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3220; email: shahram.daneshmandi@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA issued AD 2020-23-13, Amendment 39-21330 (85 FR 73407, November 18, 2020) (AD 2020-23-13), which applies to all ATR – GIE Avions de Transport Régional Model ATR42-200, -300, and -320 airplanes. AD 2020-23-13 requires a one-time inspection for discrepancies of the wire bundles between the left- and right-hand AOA probes and the crew alerting computer, and, depending on findings, applicable corrective actions. The FAA issued AD 2020-23-13 to address false activation of the stall warning system, which could result in loss of control of the airplane during take-off and landing phases.

## **Actions Since AD 2020-23-13 Was Issued**

Since the FAA issued AD 2020-23-13, a wiring modification for the captain stick shaker has been developed, along with an update to the existing systems limitations section of the AFM to incorporate procedures for the stick pusher/shaker.

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0024, dated January 19, 2021 (EASA AD 2021-0024) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all ATR – GIE Avions de Transport Régional Model ATR42-200, -300, and -320 airplanes. EASA AD 2021-0024 supersedes EASA AD 2020-0221, dated October 13, 2020 (which corresponds to FAA AD 2020-23-13).

This AD was prompted by false activation of the stall warning system due to wiring damage on the wire bundle between an AOA probe and the crew alerting computer. Such activation can lead to one or a combination of the following events:

- Autopilot disconnection;
- Stick pusher activation;
- Stick shaker activation;
- Aural stall warning (cricket audio alert);
- Master CAUTION light flashing amber;
- STICK PUSHER green light ON;
- FLT CTL amber light on CAP;
- Stick PUSHER/SHAKER pushbutton 'FAULT' amber light illumination; and
- Whooler Audio alert.

The FAA is proposing this AD to address false activation of the stall warning system, which could result in loss of control of the airplane during take-off and landing phases. See the MCAI for additional background information.

### **Explanation of Retained Requirements**

Although this proposed AD does not explicitly restate the requirements of AD 2020-23-13, this proposed AD would retain all of the requirements of AD 2020-23-13. Those requirements are referenced in EASA AD 2021-0024, which, in turn, is referenced in paragraph (g) of this proposed AD.

### **Related Service Information under 1 CFR Part 51**

EASA AD 2021-0024 describes procedures for a one-time detailed visual inspection of the wire bundles between the left- and right-hand AOA probes and the crew alerting computer for discrepancies (including, but not limited to, wire damage, missing or damaged conduits, and incorrect routing of wiring and conduits), and, depending on findings, applicable corrective actions. EASA AD 2021-0024 also describes procedures

for modifying the captain stick shaker wiring, and amending the systems limitations section of the applicable AFM to incorporate procedures for the stick pusher/shaker. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD because the FAA evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0024 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD. This proposed AD would also require sending the inspection results to ATR – GIE Avions de Transport Régional.

EASA AD 2021-0024 requires operators to “inform all flight crews” of revisions to the AFM, and thereafter to “operate the aeroplane accordingly.” However, this AD would not specifically require those actions as those actions are already required by FAA regulations. FAA regulations require operators furnish to pilots any changes to the AFM (for example, 14 CFR 121.137), and to ensure the pilots are familiar with the AFM (for example, 14 CFR 91.505). As with any other flightcrew training requirement, training on the updated AFM content is tracked by the operators and recorded in each pilot’s training record, which is available for the FAA to review. FAA regulations also require pilots to follow the procedures in the existing AFM including all updates. 14 CFR 91.9 requires

that any person operating a civil aircraft must comply with the operating limitations specified in the AFM. Therefore, including a requirement in this AD to operate the airplane according to the revised AFM would be redundant and unnecessary. Further, compliance with such a requirement in an AD would be impracticable to demonstrate or track on an ongoing basis; therefore, a requirement to operate the airplane in such a manner would be unenforceable

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2021-0024 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0024 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in the EASA AD. Service information specified in EASA AD 2021-0024 that is required for compliance with EASA AD 2021-0024 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0366 after the FAA final rule is published.

## Interim Action

The FAA considers this proposed AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

## Costs of Compliance

The FAA estimates that this proposed AD affects 26 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### Estimated costs for required actions\*

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2020-23-13	Up to 10 work-hours X \$85 per hour = Up to \$850	\$0	Up to \$850	Up to \$22,100
New proposed actions	4 work-hours X \$85 per hour = \$340	\$100	\$440	\$11,440

\*Table does not include estimated costs for reporting.

The FAA estimates that it would take about 1 work-hour per product to comply with the proposed reporting requirement in this proposed AD. The average labor rate is \$85 per hour. Based on these figures, the FAA estimates the cost of reporting the inspection results on U.S. operators to be \$2,210, or \$85 per product.

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this proposed AD.

## Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of



Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2020-23-13, Amendment 39-21330 (85 FR 73407, November 18, 2020), and

b. Adding the following new AD:

**ATR – GIE Avions de Transport Régional:** Docket No. FAA-2021-0366; Project Identifier MCAI-2021-00080-T.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2020-23-13, Amendment 39-21330 (85 FR 73407, November 18, 2020) (AD 2020-23-13).

**(c) Applicability**

This AD applies to all ATR – GIE Avions de Transport Régional Model ATR42-200, -300, and -320 airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 31, Instruments.

**(e) Reason**

This AD was prompted by false activation of the stall warning system due to wiring damage on the wire bundle between an angle of attack (AOA) probe and the crew alerting computer, and the development of a wiring modification and aircraft flight manual (AFM) update to address the unsafe condition. The FAA is issuing this AD to address this condition, which could result in loss of control of the airplane during take-off and landing phases.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0024, dated January 19, 2021 (EASA AD 2021-0024).

**(h) Exceptions to EASA AD 2021-0024**

(1) Where EASA AD 2021-0024 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0024 refers to “the effective date of EASA AD 2020-0221,” this AD requires using December 3, 2020 (the effective date of AD 2020-23-13).

(3) The “Remarks” section of EASA AD 2021-0024 does not apply to this AD.

(4) Paragraph (3) of EASA AD 2021-0024 specifies to report inspection results to ATR – GIE Avions de Transport Régional within a certain compliance time. For this AD, report inspection results at the applicable time specified in paragraph (h)(4)(i) or (ii) of this AD.

(i) If the inspection was done on or after December 3, 2020 (the effective date of AD 2020-23-13): Submit the report within 30 days after the inspection.

(ii) If the inspection was done before December 3, 2020 (the effective date of AD 2020-23-13): Submit the report within 30 days after the effective date of this AD.

(5) Paragraphs (5) and (6) of EASA AD 2021-0024 specify amending “the applicable AFM [aircraft flight manual] of that aeroplane by inserting the AFM change provided in Appendix 1 of this [EASA] AD,” but this AD requires amending “the existing AFM and applicable corresponding operational procedures to incorporate the limitations and procedures specified in Appendix 1 of EASA AD 2021-0024.”

(6) Where paragraphs (5) and (6) of EASA AD 2021-0024 specify to “inform all flight crews, and, thereafter, operate the aeroplane accordingly,” this AD does not require those actions as those actions are already required by existing FAA operating regulations.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal

inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or ATR – GIE Avions de Transport Régional's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(j) Related Information**

(1) For information about EASA AD 2021-0024, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0366.

(2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3220; email: [shahram.daneshmandi@faa.gov](mailto:shahram.daneshmandi@faa.gov).

Issued on May 7, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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